

RAW SEQUENCE LISTING

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Application Serial Number: 09/478567
Source: IFWO
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RAW SEQUENCE LISTING

DATE: 06/15/2005

PATENT APPLICATION: US/09/478,567

TIME: 15:09:28

Input Set : N:\Crf3\RULE60\09478567.raw.txt

Output Set: N:\CRF4\06152005\I478567.raw

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1 <110> APPLICANT: Rao, Gururaj A.
2 Major Sleister, Heidi
3 <120> TITLE OF INVENTION: Compositions and Methods for Altering Amino Acid
4 Content of Proteins
5 <130> FILE REFERENCE: 5718-16
6 <140> CURRENT APPLICATION NUMBER: US/09/478,567
7 <141> CURRENT FILING DATE: 2000-01-06
8 <150> PRIOR APPLICATION NUMBER: US/08/988,015
9 <151> PRIOR FILING DATE: 1997-12-10
10 <160> NUMBER OF SEQ ID NOS: 11
11 <170> SOFTWARE: PatentIn Ver. 2.0
13 <210> SEQ ID NO: 1
14 <211> LENGTH: 218
15 <212> TYPE: PRT
16 <213> ORGANISM: Glycine max
17 <400> SEQUENCE: 1
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19 1 5 10 15
20 His Asn Ile Arg Ala Phe Lys Thr Ile Pro Glu Glu Cys Val Ser Pro
21 20 25 30
22 Thr Lys Asp Tyr Ile Asn Gly Glu Gln Phe Arg Ser Asp Ser Lys Thr
23 35 40 45
24 Val Asn Gln Gln Ala Phe Phe Tyr Ala Ser Glu Arg Glu Val His His
25 50 55 60
26 Asn Asp Ile Phe Ile Phe Gly Ile Asp Asn Thr Val Leu Ser Asn Ile
27 65 70 75 80
28 Pro Tyr Tyr Glu Lys His Gly Tyr Gly Val Glu Glu Phe Asn Glu Thr
29 85 90 95
30 Leu Tyr Asp Glu Trp Val Asn Lys Gly Asp Ala Pro Ala Leu Pro Glu
31 100 105 110
32 Thr Leu Lys Asn Tyr Asn Lys Leu Leu Ser Leu Gly Phe Lys Ile Val
33 115 120 125
34 Phe Leu Ser Gly Arg Tyr Leu Asp Lys Met Ala Val Thr Glu Ala Asn
35 130 135 140
36 Leu Lys Lys Ala Gly Phe His Thr Trp Glu Gln Leu Ile Leu Lys Asp
37 145 150 155 160
38 Pro His Leu Ile Thr Pro Asn Ala Leu Ser Tyr Lys Ser Ala Met Arg
39 165 170 175
40 Glu Asn Leu Leu Arg Gln Gly Tyr Arg Ile Val Gly Ile Ile Gly Asp
41 180 185 190
42 Gln Trp Ser Asp Leu Leu Gly Asp His Arg Gly Glu Ser Arg Thr Phe
43 195 200 205
44 Lys Leu Pro Asn Pro Met Tyr Tyr Ile Glu

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45          210          215
47 <210> SEQ ID NO: 2
48 <211> LENGTH: 218
49 <212> TYPE: PRT
50 <213> ORGANISM: Glycine max
51 <400> SEQUENCE: 2
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54   His Asn Ile Phe Gly Phe Glu Thr Ile Pro Glu Glu Cys Val Glu Ala
55           20          25          30
56   Thr Lys Glu Tyr Ile His Gly Glu Gln Tyr Arg Ser Asp Ser Lys Thr
57           35          40          45
58   Val Asn Gln Gln Ala Tyr Phe Tyr Ala Arg Asp Leu Glu Val His Pro
59           50          55          60
60   Lys Asp Thr Phe Val Phe Ser Ile Asp Asn Thr Val Leu Ser Asn Ile
61           65          70          75          80
62   Pro Tyr Tyr Lys Lys His Gly Tyr Gly Val Glu Lys Phe Asn Ser Thr
63           85          90          95
64   Leu Tyr Asp Glu Trp Val Asn Lys Gly Asn Ala Pro Ser Leu Pro Glu
65           100         105         110
66   Thr Leu Lys Asn Tyr Asn Lys Leu Val Ser Leu Gly Phe Lys Ile Ile
67           115         120         125
68   Phe Leu Ser Gly Arg Thr Leu Asp Lys Gln Ala Val Thr Glu Ala Asn
69           130         135         140
70   Leu Lys Lys Ala Gly Tyr His Thr Trp Glu Lys Leu Ile Leu Lys Asp
71           145         150         155         160
72   Pro Gln Pro Ser Thr Pro Asn Ala Val Ser Tyr Lys Thr Ala Ala Arg
73           165         170         175
74   Glu Lys Leu Ile Arg Gln Gly Tyr Asn Ile Val Gly Ile Ile Gly Asp
75           180         185         190
76   Gln Trp Ser Asp Leu Leu Gly Gly His Arg Gly Glu Ser Arg Thr Phe
77           195         200         205
78   Lys Leu Pro Asn Pro Leu Tyr Tyr Ile Gln
79           210         215
81 <210> SEQ ID NO: 3
82 <211> LENGTH: 214
83 <212> TYPE: PRT
84 <213> ORGANISM: Lycopersicon esculentum
85 <400> SEQUENCE: 3
86   Leu Lys Cys Thr Thr Trp Arg Phe Val Val Glu Thr Asn Asn Leu Ser
87     1          5          10          15
88   Pro Trp Lys Thr Ile Pro Glu Glu Cys Ala Asp Tyr Val Lys Glu Tyr
89           20          25          30
90   Met Val Gly Pro Gly Tyr Lys Met Glu Ile Asp Arg Val Ser Asp Glu
91           35          40          45
92   Ala Gly Glu Tyr Ala Lys Ser Val Asp Leu Gly Asp Asp Gly Arg Asp
93           50          55          60
94   Val Trp Ile Phe Asp Val Asp Glu Thr Leu Leu Ser Asn Leu Pro Tyr
95           65          70          75          80

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96   Tyr Ser Asp His Arg Tyr Gly Leu Glu Val Phe Asp Asp Val Glu Phe
97           85           90           95
98   Asp Lys Trp Val Glu Asn Gly Thr Ala Pro Ala Leu Gly Ser Ser Leu
99           100           105           110
100  Lys Leu Tyr Gln Glu Val Leu Lys Leu Gly Phe Lys Val Phe Leu Leu
101           115           120           125
102  Thr Gly Arg Ser Glu Arg His Arg Ser Val Thr Val Glu Asn Leu Met
103           130           135           140
104  Asn Ala Gly Phe His Asp Trp His Lys Leu Ile Leu Arg Gly Ser Asp
105           145           150           155           160
106  His Gly Lys Thr Ala Thr Thr Tyr Lys Ser Glu Arg Arg Asn Ala Met
107           165           170           175
108  Val Glu Glu Gly Phe Arg Ile Val Gly Asn Ser Gly Asp Gln Trp Ser
109           180           185           190
110  Asp Leu Leu Gly Ser Ser Met Ser Tyr Arg Ser Phe Lys Leu Pro Asn
111           195           200           205
112  Pro Met Tyr Tyr Ile Leu
113           210
115 <210> SEQ ID NO: 4
116 <211> LENGTH: 217
117 <212> TYPE: PRT
118 <213> ORGANISM: Phaseolus vulgaris
119 <400> SEQUENCE: 4
120  Ser Asp Thr Glu Val Arg Cys Ala Ser Trp Arg Leu Ala Val Glu Ala
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122  Gln Asn Ile Phe Gly Phe Glu Thr Ile Pro Gln Gln Cys Val Asp Ala
123           20           25           30
124  Thr Ala Asn Tyr Ile Glu Gly Gly Gln Tyr Arg Ser Asp Ser Lys Thr
125           35           40           45
126  Val Asn Gln Gln Ile Tyr Phe Phe Ala Arg Asp Arg His Val His Glu
127           50           55           60
128  Asn Asp Val Ile Leu Phe Asn Ile Asp Gly Thr Ala Leu Ser Asn Ile
129           65           70           75           80
130  Pro Tyr Tyr Ser Gln His Gly Tyr Gly Ser Glu Lys Phe Asp Ser Glu
131           85           90           95
132  Arg Tyr Asp Glu Glu Phe Val Asn Lys Gly Glu Ala Pro Ala Leu Pro
133           100           105           110
134  Glu Thr Leu Lys Asn Tyr Asn Lys Leu Val Ser Leu Gly Tyr Lys Ile
135           115           120           125
136  Ile Phe Leu Ser Gly Arg Leu Lys Asp Lys Arg Ala Val Thr Glu Ala
137           130           135           140
138  Asn Leu Lys Lys Ala Gly Tyr Asn Thr Trp Glu Lys Leu Ile Leu Lys
139           145           150           155           160
140  Asp Pro Ser Asn Ser Ala Glu Asn Val Val Tyr Lys Thr Ala Glu Arg
141           165           170           175
142  Ala Lys Leu Val Gln Glu Gly Tyr Arg Ile Val Gly Asn Ile Gly Asp
143           180           185           190
144  Gln Trp Asn Asp Leu Lys Gly Glu Asn Arg Ala Ile Arg Ser Phe Lys
145           195           200           205

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146   Leu Pro Asn Pro Met Tyr Tyr Thr Lys
147   210                               215
149 <210> SEQ ID NO: 5
150 <211> LENGTH: 214
151 <212> TYPE: PRT
152 <213> ORGANISM: Arabidopsis thaliana
153 <400> SEQUENCE: 5
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155   1                               5                               10                               15
156   Asn Phe Asp Thr Val Pro Ala Asn Cys Lys Ala Tyr Val Glu Asp Tyr
157   20                               25                               30
158   Leu Ile Thr Ser Lys Gln Tyr Gln Tyr Asp Ser Lys Thr Val Asn Lys
159   35                               40                               45
160   Glu Ala Tyr Phe Tyr Ala Lys Gly Leu Ala Leu Lys Asn Asp Thr Ile
161   50                               55                               60
162   Asn Val Trp Ile Phe Asp Leu Asp Asp Thr Leu Leu Ser Ser Ile Pro
163   65                               70                               75                               80
164   Tyr Tyr Ala Lys Tyr Gly Tyr Gly Thr Glu Asn Thr Ala Ala Gly Ala
165   85                               90                               95
166   Tyr Trp Ser Trp Leu Val Ser Gly Glu Thr Pro Gly Leu Pro Glu Thr
167   100                              105                              110
168   Leu His Leu Tyr Glu Asn Leu Leu Glu Leu Gly Ile Glu Pro Ile Ile
169   115                              120                              125
170   Ile Ser Asp Arg Trp Lys Lys Leu Ser Glu Ile Thr Ile Glu Asn Leu
171   130                              135                              140
172   Lys Ala Val Gly Val Thr Lys Trp Lys His Val Ile Leu Lys Pro Asn
173   145                              150                              155                              160
174   Gly Lys Leu Thr Gln Val Val Tyr Lys Ser Lys Val Arg Asn Gly Leu
175   165                              170                              175
176   Val Arg Gln Gly Tyr Asn Ile Val Gly Ile Ile Gly Asp Gln Trp Ala
177   180                              185                              190
178   Asp Leu Val Glu Asp Thr Pro Gly Arg Val Phe Lys Leu Pro Asn Pro
179   195                              200                              205
180   Leu Tyr Tyr Val Pro Ser
181   210
183 <210> SEQ ID NO: 6
184 <211> LENGTH: 220
185 <212> TYPE: PRT
186 <213> ORGANISM: Arabidopsis thaliana
187 <400> SEQUENCE: 6
188   Ser Ile Asn Tyr Pro Asn Cys Arg Ser Trp His Leu Gly Val Glu Thr
189   1                               5                               10                               15
190   Ser Asn Ile Ile Asn Phe Asp Thr Val Pro Ala Asn Cys Lys Ala Tyr
191   20                               25                               30
192   Val Glu Asp Tyr Leu Ile Thr Ser Lys Gln Tyr Gln Tyr Asp Ser Lys
193   35                               40                               45
194   Thr Val Asn Lys Glu Ala Tyr Phe Tyr Ala Lys Gly Leu Ala Leu Lys
195   50                               55                               60
196   Asn Asp Thr Val Asn Val Trp Ile Phe Asp Leu Asp Asp Thr Leu Leu

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197      65      70      75      80
198  Ser Ser Ile Pro Tyr Tyr Ala Lys Tyr Gly Tyr Gly Thr Glu Asn Thr
199      85      90      95
200  Ala Pro Gly Ala Tyr Trp Ser Trp Leu Glu Ser Gly Glu Ser Thr Pro
201      100      105      110
202  Gly Leu Pro Glu Thr Leu Tyr Leu Tyr Glu Asn Leu Leu Glu Leu Gly
203      115      120      125
204  Ile Glu Pro Ile Ile Ile Ser Asp Arg Trp Lys Lys Leu Ser Glu Val
205      130      135      140
206  Thr Val Glu Asn Leu Lys Ala Val Gly Val Thr Lys Trp Lys His Leu
207      145      150      155      160
208  Ile Leu Lys Pro Asn Gly Ser Lys Leu Thr Gln Val Val Tyr Lys Ser
209      165      170      175
210  Lys Val Arg Asn Ser Leu Val Lys Lys Gly Tyr Asn Ile Val Gly Asn
211      180      185      190
212  Ile Gly Asp Gln Trp Ala Asp Leu Val Glu Asp Thr Pro Gly Arg Val
213      195      200      205
214  Phe Lys Leu Pro Asn Pro Leu Tyr Tyr Val Pro Ser
215      210      215      220
217 <210> SEQ ID NO: 7
218 <211> LENGTH: 219
219 <212> TYPE: PRT
220 <213> ORGANISM: Arabidopsis thaliana
221 <400> SEQUENCE: 7
222  Ser Ile Asn Tyr Ala Asn Cys Arg Ser Trp His Leu Gly Val Glu Thr
223      1      5      10      15
224  Ser Asn Ile Ile Asp Phe Asp Thr Val Pro Ala Asn Cys Lys Asp Tyr
225      20      25      30
226  Val Glu Asp Tyr Leu Ile Thr Ser Lys Gln Tyr Gln Tyr Asp Ser Lys
227      35      40      45
228  Thr Val Cys Lys Glu Ala Tyr Phe Tyr Ala Lys Gly Leu Ala Leu Lys
229      50      55      60
230  Asn Asp Thr Val Asn Val Trp Ile Phe Asp Leu Asp Asp Thr Leu Leu
231      65      70      75      80
232  Ser Ser Ile Pro Tyr Tyr Ala Lys Tyr Gly Tyr Gly Thr Glu Lys Thr
233      85      90      95
234  Asp Pro Gly Ala Tyr Trp Leu Trp Leu Gly Thr Gly Ala Ser Thr Pro
235      100      105      110
236  Gly Leu Pro Glu Gly Leu Tyr Leu Tyr Gln Asn Ile Ile Glu Val Gly
237      115      120      125
238  Ile Glu Pro Ile Ile Ile Leu Ser Val Arg Trp Lys Leu Trp Lys Asn Val
239      130      135      140
240  Thr Leu Asn Leu Glu Ala Ala Gly Val Thr Tyr Trp Lys His Leu Ile
241      145      150      155      160
242  Leu Lys Pro Asn Gly Ser Asn Leu Arg Gln Val Val Tyr Lys Ser Lys
243      165      170      175
244  Val Arg Asn Lys Leu Val Lys Lys Gly Tyr Asn Ile Val Gly Asn Ile
245      180      185      190
246  Gly Asp Gln Trp Ala Asp Leu Val Glu Asp Thr Pro Gly Arg Val Phe

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/478,567

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Input Set : N:\Crf3\RULE60\09478567.raw.txt

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